Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte GARY E. LAVELLE
and JAMES P. KRUL

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Appeal No. 1999-1790
Application 08/707,206

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ON BRIEF

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Before THOMAS, KRASS and BARRY, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellants have appealed to the Board from the examiner's final rejection of claims 1 through 24.

Representative claim 1 is reproduced below:

1. An electromagnetic lock comprising:

an electromagnet;

an armature for bonding engagement to said electromagnet, one of said armature and said electromagnet being adapted for mounting to a door, and the other of said electromagnet and said armature adapted for mounting to a door frame;

a status device for generating a door status signal indicative of the status of the door; and

controller means for controlling initial pulses of current to said electromagnet, said initial pulses initiated in response to said door status signal and each said initial pulse having a preestablished initial pulse width and a preestablished initial pulse spacing between initial pulses.

The following references are relied on by the examiner:

Hines	4,608,620	Aug. 26, 1986
Oyama et al. (Oyama)	4,878,147	Oct. 31, 1989
Waltz et al. (Waltz)	5,184,855	Feb. 9, 1993

All claims on appeal, claims 1 through 24, stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Waltz in view of Oyama as to claims 1 through 3, 5 through 16 and 18 through 23, with the addition of Hines to this combination as to claims 4, 17 and 24.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief for appellants' positions and to the Office action in Paper No. 5 mailed on December 2, 1997 as well as the answer for the examiner's position.

OPINION

We reverse.

According to the examiner's views at page 2 of Paper No. 5, the examiner takes the view that Waltz teaches everything in the independent claims on appeal but the feature relating to pulse width modulation (PWM). This latter feature is set forth in the

last clause of each independent claim (1, 10 and 19) on appeal. We agree with this assessment by the examiner of Waltz alone failing to teach within 35 U.S.C. § 103 the subject matter of each of these independent claims on appeal.

Notwithstanding appellants' views expressed in the brief that Oyama is not analogous art, for the sake of rendering this decision, we assume that it is to simply our analyses. According to the prior art discussed at columns 1 and 2 of Oyama, when the prior art power supply voltages are operated at different levels for a specific prior art electromagnetic coil drive device, this necessitated a complete duplication of circuit elements, which was considered a disadvantage in the art. Oyama's contribution to the art is a circuit design that decreased dramatically the number of different electronic circuit elements while still permitting the overall system operation at plural, different power supply voltage levels. Oyama's invention, therefore, is primarily directed at an improvement over a specific prior art approach.

We generally agree with appellants' assessment of the references beginning at page 9 of the brief including appellants' view that Waltz relates to an electromagnet lock assembly "wherein the electromagnet is normally supplied with a steady, non-pulsed baseline current and voltage. When the locking occurs, a single

burst of a higher level of electrical energy is applied to move the lock from an open to a locked position."

This description is consistent with the operation of Waltz's power circuit 22 with its enhancing circuit 39 depicted in Figure 1 as discussed in the paragraph bridging columns 2 and 3. These power circuits are further detailed in Figure 7; the most pertinent portion corresponding to it for our purposes is the paragraph bridging columns 5 and 6. On the basis of the nature of the operation of the circuit controlling the electromagnetic lock in Waltz, we cannot conclude that the artisan would have found it obvious to have utilized a pulse width modulation approach as in Oyama to replace the operation of the power actuating circuits in Figures 1 and 7 of Waltz. Waltz's power circuit operates upon the principle of providing a high current initial pulse derived both from the power supply voltage +V in addition to the initial current supplied by the discharge of the capacitor 234 in Figure 7, both cumulatively providing an initial high current value to actuate the lock and, upon discharge of the capacitor 234, providing a holding current for the coil 242 in Figure 7 supplied only by the +V power supply voltage. Thus, in accordance with the examiner's views about the deficiencies of Waltz alone meeting the subject matter of the independent claims on appeal, there is no series of pulse-width-

modulated pulses in Waltz as required at the end of each independent claim on appeal.

Therefore, Oyama solves a problem not present or suffered within Waltz's own teachings. As indicated earlier, the disclosure in Oyama is directed primarily at the deficiencies of the admitted prior art. If we assume for the sake of argument that the general teaching of Oyama's device as being an electromagnetic coil drive device applicable to the electromagnetic coils of the electronic lock of Waltz, the artisan simply would not have found it desirable to combine the teachings of Oyama into the system of Waltz. There is simply no reason based on the art alone and the examiner's reasoning to have imported the principles of pulse width modulation from Oyama into the non-PWM system of Waltz.

We reach this conclusion even in view of the examiner's further reliance upon the teaching at column 8, lines 49 through 52 of Oyama which generally indicates that the teaching value of Oyama may go beyond electromagnetic switches to other electromagnetic devices. This is simply not enough motivation in our view for the artisan to have found it desirable to have incorporated the teachings of Oyama into Waltz.

Although we recognize that the references may be combined within 35 U.S.C. § 103, the proper approach to follow within this statutory provision is that the conclusion of obviousness must be

essentially based upon the artisan's prospective view of the applied prior art rather than upon mere possibilities of combinability. Therefore, we cannot conclude that the artisan would have found it obvious to combine the teachings of Oyama into Waltz's system within 35 U.S.C. § 103.

In view of the foregoing, we do not sustain the rejection of any independent claims 1, 10 and 19 on appeal within 35 U.S.C. § 103. We therefore reverse the rejection of those claims and the respective dependent claims relying upon these references, as well as the additional rejection of claims 4, 17 and 24 further relying upon Hines. As such, the decision of the examiner rejecting claims 1 through 24 under 35 U.S.C. § 103 is reversed.

REVERSED

James D. Thomas Administrative Patent Judge	)
Errol A. Krass Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
Lance Leonard Barry Administrative Patent Judge	)

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